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Karolinska Institutet, Stockholm, Sweden

UNDERSTANDING THE MEANING OF AUTONOMY

Creating a learning space for professional becoming in clinical education

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Stockholm 2017

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Published by Karolinska Institutet.
Printed by E-print AB

ISBN 978-91-7676-808-2

UDERSTANDING THE MEANING OF AUTONOMY

Creating a learning space for professional becoming in clinical education

THESIS FOR DOCTORAL DEGREE (Ph.D.)

to be defended at Karolinska Institutet, Sal Gustaf Retzius, Berzelius Väg 3, Solna

On Friday 15th Dec 2017 at 13.00

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”Det har jag aldrig provat tidigare så det klarar jag helt säkert.”

Pippi Långstrump

”Två sanningar närmar sig varann. En kommer inifrån,
en kommer utifrån
och där de möts har man en chans att få se sig själv.”

Tomas Tranströmer

Till Vega

PROLOGUE

Questions about independence in education have occupied me for well over twenty years by now. As a nursing student just entering a problem-based program I could feel “in my body” how issues regarding what and how to study frustrated me, made me sad and angry. Could this really be right? Would I not miss vital knowledge? Could I really become a nurse this way? Hard work and thoughts of leaving the program followed, but after one semester, I suddenly realized the beauty and genius of problem-based learning. My perception of knowledge started to take on another more complex shape and I saw how this problem-based education demanded more from me – not less. As a young nurse, I detected how my ability to solve problems and not be afraid of new and unknown situations was developed. For this, I am forever grateful to my nursing education at Hälsouniversitetet, Linköping University. I still benefit from it - every day.

Returning to my Alma Mater some years later as a teacher, these questions arose again, this time from another perspective. At a pedagogical conference in 2003, Charlotte Silén (later described in Silén, 2004) presented her thoughts and research on how students in problem-based learning build their understanding of a subject matter by a constant process of discerning. Silén showed how students adopt positions in regards to central questions and boundaries of the subject matter, thereby creating a shape of the subject matter. My recognition, both as a student and as a teacher, was instant and - again - “felt in the body” as well as it challenged my thinking. Right there, this thesis was born. I have had the great benefit of working with Charlotte Silén on these questions ever since, and for this I am more grateful than words can express. It is my sincere hope that the findings from this thesis may play some part in how we think about, plan and execute clinical education, and in the end be beneficial to the care of patients.

Gaudeamus igitur!

ABSTRACT

The overall aim of this thesis was to understand the meaning of the phenomenon autonomy in learning, related to medicine and health-care students' perceptions of learning and development in clinical education. We know little about how autonomy influences individual thinking, action and awareness of learning in clinical education. Studies in this thesis showed a connection between autonomy and experiences of authenticity. There is also a knowledge gap concerning authenticity as phenomenon featured in a medical education context. An understanding of the ways in which students' learning and professional development are facilitated by autonomy and authenticity is considered vital for future development of clinical education. This thesis is ontologically and epistemologically grounded within the social constructivist-interpretative paradigm. The overall aim was achieved through four research questions, represented by the aims in four scientific studies that together constitute the findings in this thesis. The conducted research was positioned within the phenomenological hermeneutic research tradition, describing and understanding phenomena and their meaning revealed through hermeneutics. The studies were undertaken using narrative inquiry. Context for studies I-IV are students' clinical placements, at hospital wards and clinics in a primary care setting, or in some cases in a home care setting or a laboratory environment. Studies I, II and IV, rest on paradigmatic narrative reasoning, whilst study III apply narrative analysis and the construction of stories, however after a theoretical analysis of the collected data. Analysis of data in this thesis rests heavily on the work by Ricoeur, and the view of interpretation as the "hinge" between language and lived experience. Findings show that autonomy was shaped of and given meaning by *Autonomy as a qualitatively different view of a discipline*, *Autonomy as a social phenomenon*, and *Autonomy as authentic experience*. Autonomy in learning constituted a social phenomenon and something that evolved in relation to others. Findings in this thesis also displayed connections between autonomy in learning and experiences of authenticity in clinical education. Furthermore, findings indicated that transformative learning processes contributed to the development of professional identity, triggered by authentic practical experiences, and the perceived meaning of these experiences. Authentic clinical experience, here interpreted as internal authenticity, was a prerequisite for experiencing membership in a community of practice, thus making internal authenticity a component in the development of professional identity. Students perceived a need for attachment, i.e. attachment to patients, to supervisors, to the workplace, to the situation and to reasoning and knowledge. Authenticity was enhanced when relationships with supervisors, patients and other professional categories were formed. Thus, *attachment* is here seen as a condition for experiencing *authenticity*, and authenticity is here a prerequisite for *autonomy*.

LIST OF SCIENTIFIC PAPERS

I. Fredholm Nilsson, A. & Silén, C. (2010).”*You have to know why*” - The Influence of Different Curricula on Nursing Students’ Perception of Nursing. *Scandinavian Journal of Educational Science*, 54(6), 631-642.

II. Fredholm, A., Henningsohn, L., Savin-Baden, M., Silén, C. (2015). Autonomy as both challenge and development in clinical education. *Learning, Culture and Social Interaction*, 5, 20-27.

III. Fredholm, A., Henningsohn, L., Savin-Baden, M., Silén, C. The practice of thresholds: autonomy in clinical education explored through variation theory and the threshold concepts framework. *Submitted.*

IV. Fredholm, A., Manninen, K., Hjelmqvist, H., Silén, C. Feeling like a doctor - Medical Students’ Experiences of Authenticity and Professional Development. *Submitted*.

INNEHÅLL

1 INTRODUCTION

The overall aim of this thesis was to understand the meaning of the phenomenon autonomy in learning, related to medicine and health-care students' perceptions of learning and development in clinical education. Little is known about how autonomy influences individual thinking, action and awareness of learning in general and this is particularly true when it comes to clinical education. Studies in this thesis showed a connection between autonomy and experiences of authenticity. There is also a knowledge gap concerning authenticity as phenomenon featured in a medical education context and therefore a lack of knowledge regarding the development of clinical education that facilitates and supports experiences of authenticity. An understanding of the ways in which students' learning and professional development are facilitated by autonomy and authenticity, and a qualitatively different understanding of these concepts is here considered vital for future development of learning and teaching strategies in medical and health care education with particular emphasis on the design of clinical education.

1.1 OUTLINE OF THE THESIS

This thesis focuses on autonomy and authenticity in medical education and consists of four empirical studies. These studies are framed by a theoretical background with theoretical underpinnings for learning, autonomy and authenticity and the ontological and epistemological assumptions that constitute the foundation for the research. The methodology section provides insight into how the empirical research approaches relate to each other and to the ontological and epistemological stances. A comprehensive description of synthesized main findings is offered together with a model of thought depicting the interrelatedness of findings. These main findings are discussed in relation to existing theory of the field, and finally implications for medical education and especially for clinical education are highlighted.

2 BACKGROUND

The background broadly defines learning and learning processes in more general and then goes on to describe conditions for learning and the mechanisms that prompt and drive learning forward. In this thesis, learning is considered as being both an individual, as well as a social process. For the purpose of defining learning as an individual process, variation theory is applied and used a theoretical frame of reference. For the purpose of contextualizing learning for the individual, the concepts of meaning and relevance are introduced together with the "what" and "how" of learning, followed by the theoretical construct of threshold concepts. Bridging the individual perspective to a social perspective on learning, transformative learning is presented and how this learning through meta-cognitive processes can relate to independence and/or autonomy in learning and the concept "clinical education" is introduced. Autonomy and authenticity in learning are conceptualized and problematized in relation to rational for and aim of this thesis.

2.1 LEARNING PROCESSES

Illeris (2009) provides an overall and comprehensive understanding of learning in an overview comprising different theoretical angles and epistemological platforms. Learning can broadly be defined as "*any processes that in living organisms lead to permanent capacity change and which is not solely due to biological maturation or ageing*" (Illeris, 2009 p.3). Understanding of what learning is cannot only be a matter of understanding the process of learning itself, but also all the conditions that influence and are influenced by this process. All learning implies the integration of two different processes: an external interaction process between the learner and his or her social, cultural or material environment and an internal psychological process of elaboration and acquisition. Both processes must be actively involved for learning to take place (Illeris, 2009). The acquisition process can further be broken down into two processes, namely the function of managing the learning content and the incentive function of providing and directing the mental energy that runs the process. Thus, all learning will always involve three dimensions: content, incentive and environment. The learning content is about knowledge and skills, but also as much about values, attitudes, strategies and so on, and the endeavor of the learner to construct meaning from, and ability to deal with challenges in daily life (Illeris, 2009). This view of learning as a constructivist phenomenon gives that the learner him- or herself construct mental schemes (content dimension) or patterns (incentive and interactive dimension) that organize learning outcomes so that new experiences can be viewed against

these pre-existing schemes or patterns. Elaborating on the concepts of learning by Piaget, Illeris (2009 p. 13) conclude these schemes or patterns to be "*cumulative, assimilative, accommodative or transitional /transformative"*. Cumulative or mechanical learning is characterized by being an isolated formation, something new that is not part of anything else. Therefore, this type of learning is most present during the first years, or later when we have to learn something without context of meaning or personal significance. The most common type of learning is assimilative or learning by addition (Illeris, 2009). This means that new elements are linked as an addition to an already developed scheme or pattern. When we encounter new situations with new and unknown events, we may not be able to categorize this experience to existing schemes or patterns. If this new experience seems important enough, and worth acquiring, accommodative learning takes place. This type of learning demands the breakdown and transformation of existing patterns or schemes so that the new might fit in and can be experienced as both demanding and painful. As a more complex type of learning Illeris (2009) depicts "*significant, expansive, transitional or transformative learning*" (p.14). This type of learning encompasses changes in personality or in the organization of the self, and is characterized by the restructuring of whole clusters of schemes and/or patterns. This change is brought on by a crisis-like situation demanding change in order to be able to continue.

2.1.1 Learning through discernment and variation

Variation theory accounts for differences in learning and provides a theoretical basis for understanding some of the necessary conditions of learning (Runesson, 2006; Ling & Marton, 2012). According to variation theory, the core of learning consists of discernment and variation (Marton & Trigwell, 2000). "*Learning is a function of discernment and discernment is a function of variation*" (Lo, 2012 p. 29; Marton & Booth, 1997). "*Discerning means that a feature of the physical, cultural, symbolic or sensuous world appears to the subject, and is seen or sensed by him or her against the background of his or her previous experiences of something more or less different*" (Marton & Trigwell, 2000, p. 386). The way that we experience a situation is dependent on how we discern the critical features of this situation (Marton & Trigwell, 2000; Pang, 2003; Marton & Pong, 2005; Marton, 2006; Ling & Marton, 2012). Thus, it is not possible to discern something as such. A situation is always situated in time, space and has a social dimension Marton & Booth (1997). A phenomenon, on the other hand, can be perceived as an abstraction that is independent of context, time and space. However, in a common learning situation, these two are intertwined and cannot be separated.

Our understanding of the situation and our understanding of the phenomenon that gives this situation meaning are connected in one experience. We understand the situation based on the phenomena involved – and the phenomena are perceived in light of the specific situation (Marton & Booth, 1997).

Learning thus becomes a change in discernment brought on by a learner's change in awareness of a phenomenon (Pang, 2003). For every object of learning, there are critical aspects that the learners must be able to discern (Ling & Marton, 2012). Runesson (2006) argues that the difference between an amateur and an expert is the ability to discern these critical aspects. From a variation theory perspective, this is viewed as a matter of discrimination and differentiation, and learning is seen as the ability to discern differences. The space for learning therefore is the potential for variation, or difference, provided by the situation, not the situation per se. Runesson (2006) defines the learning space as a space created of dimensions of variation of critical aspects. Thus, the learning object always consists of phenomena that are part of a situation.

In order to discern something from its context, we have to identify it as a particular thing and assign meaning to it – without this meaning and "shape" of something it cannot be delimited from its context (Marton & Booth, 1997; Pang 2003). This is referred to as the referential aspect and represents the overall meaning of a phenomenon, the whole. Our awareness of something is dependent on our pre-understanding of that something. Marton & Booth (1997) explain this by using the terms internal and external horizon, where the internal horizon is connected to the internal structure of a phenomenon (how the parts are connected to the whole and so on) and the external horizon to the perceived context or situation that "holds" the phenomenon, i.e. perception of other similar contexts or situations. Runesson (2006), suggests that awareness is a totality of all our experiences, but differentiated, so that some things can be at the center of our attention while others are more in the background. Thus, some features or aspects are discerned, whereas others are not discerned, i.e. how something is experienced is made up by the simultaneous discernment of features of that which is experienced (Runesson, 2006). The parts of a phenomenon constitute the internal structure. These two aspects of a phenomenon cannot be separated; "*structure presupposes meaning and meaning presupposes structure*" (Pang, 2003 p. 149).

The verb “to learn” demands a direction, something that is to be learned, the “what” of learning. Learning itself, the “how” of learning, is about the strategies used for learning, what is thought and actually done to learn something. It is not possible to learn something without learning, and learning is not possible without a learning object (Marton & Booth, 1997; Silén, 2000). The “how” of learning is further differentiated into the act of learning, and the indirect object of learning. The indirect object of learning being the quality of the learning process, the intention of learning and which capacities that are wished for as outcome of the learning process, and the act of learning being the perception of how the learning act is performed (Marton & Booth, 1997).

2.1.2 Meaning and Relevance

Every learning situation or situation where we apply something we have learned has a certain relevance structure. This relevance structure is a person’s perception of what the situation demands, a goal or direction. In relation to this direction, different aspects of the situation appear more or less relevant to the learner. The way in which the learner perceives the situation as a whole creates perspective on the parts involved (Marton & Booth, 1997). A situation’s relevance structure is the motivation for learning, and the mechanism of learning is variation. This brings to the fore the need for learners to experience something in a different way than before, i.e. to become capable to discern and differentiate aspects of a phenomenon that the learner previously had not been able to do. To learn such a change is to be motivated by the situation’s relevance structure. To create situations that prompt learning, new situations should be created allowing students to encounter new abstractions, principles, theories and explanations, thus creating a state of tension (Marton & Booth, 1997).

2.1.3 Threshold concepts

The idea of threshold concepts builds on the notion that there are certain learning experiences or concepts that when “passed” open up a new understanding and allow things formerly not perceived to come into view. These thresholds allow a new and previously inaccessible way of thinking and reasoning and reformulate the learner’s frame of meaning. Threshold concepts are considered being transformative, integrative, irreversible and frequently troublesome. Thresholds are often points at which the learner experiences difficulty and where knowledge is troublesome because it is conceptually difficult, alien or tacit and for

instance requires adopting an unfamiliar discourse. These difficulties can leave the learner in a state of liminality, or a "stuck place" (Land et al., 2010).

The critical aspects of a phenomenon, can be linked to the idea of threshold concepts. In connection to variation theory and discernment, threshold concepts represent variation that is so extensive that it changes the way the learner can view an "old concept". The old view is thus so challenged that a new way of viewing or experiencing cannot be ignored by the learner. Disjunctions according to Savin-Baden (2008) are "spaces" or "positions" accomplished through the realization that knowledge is troublesome, for instance after encountering a threshold concept, moving the learner into a liminal space that can be transitional and transformational. Learning in the liminal space often entails oscillation between different states and emotions. The liminal space is characterized by a stripping away of old identities, oscillation between states and personal transformation (Savin-Baden, 2008). Within the liminal space an integration of new knowledge occurs. This integration requires a reconfiguration of the learner's earlier conceptual schema and a letting go of an earlier conceptual stance. Land et al. (2014) depict this transformation as a cognitive tunnel where the liminal space within the tunnel is entered when triggered by a threshold concept or disjunction. Coming out of the tunnel requires a shift in learner subjectivity, a discursive shift, or a shift of a conceptual, ontological or epistemological nature.

2.1.4 Transformative learning

The work concerning threshold concepts resonances with work undertaken in the field of transformational learning as described by Mezirow (Lo 2012). Transformative learning theory is defined as the process "*by which we transform problematic frames of reference (mindsets, habits of mind, meaning perspectives) to make them more inclusive, discriminating, open, reflective and emotionally able to change*" (Mezirow, 2003 p. 58). Frames of reference encompass cognitive, conative and affective components and partly operate outside our awareness as habits of minds and resulting points of view. Frames of reference are the structures of culture and language through which we construct meaning by assigning coherence and significance to our experience. These frames of reference shape our perception, cognition and feelings and predispose our intentions, expectations, beliefs and purposes (Mezirow, 1997). As a critique to Mezirow's theory of transformative learning as being too cognitively focused, Kegan (2010) suggests that the form undergoing transformation needs to better understood; "*If*

there is no form there is no transformation" (Kegan, 2010 p. 41). At the core of a form is a way of knowing something, and thus learning in order to be transformational, need to constitute an epistemological change and not just a change in behavioral repertoire or an increase in knowledge. Transformational learning thus becomes a meta-process affecting the ways in which we create meaning of our experiences, a change in how we know something (Kegan, 2009). In an elaboration of the epistemology of transformative learning in adult education, Mezirow (2003) defines transformative learning as uniquely adult form of metacognitive reasoning.

2.1.5 Metacognitive learning processes creating transformation

In relation to self-directed learning in problem-based learning (PBL), Silén (2000; 2001; 2003) reveals a dialectic relationship, which is created when students are challenged to take responsibility for their own learning. The relationship that emerges refers to the students fluctuating between chaos (frustration, disorientation) and cosmos (structures they themselves construct) when they have to make their own choices and decisions about their studies (Silén, 2001). The relationship between chaos and cosmos creates a driving force that makes students consider and try to handle questions similar to the teachers' traditional educational questions: what is there to be learned, how should it be learned, why should the students learn certain things, and what are the objectives of the learning process and how are they attained. Research on chaos and cosmos Silén (2000) show that vital for students developing self-directedness and taking responsibility for learning was their ability to reflect on and examine their own learning. This meta-cognitive level of learning represents thinking about and analyzing personal thoughts about learning, and is necessary to develop the ability to transfer knowledge to new situations. The meta-level of learning that develops when students must discern and make choices regarding their own learning could lead to a meta-cognitive awareness of the structure for a subject or discipline (Silén, 2004).

2.1.6 Clinical education

Students completing a six semester higher education program (three years, 180 credits) in Sweden will be rewarded a Bachelor of Science degree. A Master of Science degree corresponds to 330 credits (five and a half years). The intended learning outcomes for Bachelor and Master of Science degrees in terms of knowledge, skills and attitudes are specified in the

Swedish Higher Education Act (SFS1992: 1434) and the Swedish Higher Education Ordinance (SFS1993:100). In addition to these general requirements for higher education degrees the specific demands for each of the health care professions is regulated through the Health and Medical Services Act (SFS 2017:30). License to practice within the health care professions is issued by the Swedish Board of Health and Welfare. The regulations for Higher Education and Health Care professions regulate both pre-clinical and clinical education, thus making the clinic to a different arena for learning than theoretical studies, but with the same demands and mutually important for the intended learning outcomes.

Clinical education is a complex phenomenon and can be described in terms of e.g. work-place learning, situated learning and experience-based learning. Common for these perspectives is that "learning cannot be dissociated from the context in which it occurs and an important aspect of any such context is its social nature" (Yardley et al., 2012). Even though learning can be viewed as an individual or as a collective process, to any form of experiential learning interaction with others is fundamental (ibid). The major difference between clinical education and theoretical studies is that the student, for a period of time, exchanges the collective, theoretical educational environment for individual learning in a workplace environment with many professional groups. The more general learning in a university setting is exchanged for the complex, indistinct, diverse and individual in a larger work place community (Silén, 2013). Practice can be seen as dynamic and complex, routinized, yet creative, pluralistic and not singular. The same practice can be enacted and embodied in different ways and have several meanings, as everything we live and think have multiple meanings (Adams, et al., 2011; Dall'Alba, 2009). Clinical educators have to combine their clinical work with education, and thus have to focus their attention on the individual students' learning within their own interaction with patients. They also have to support students while also challenge them, at the same time involving them in their practice at the highest level permitted by the students' ability and the complexity of the clinical situation (Dornan et al. 2009). In clinical education, students have opportunity to engage with the concrete reality that their education is designed to create readiness for and understanding of (Silén, 2013). Clinical education is located in the work-place, defined as a place where students, professionals and patients come together in the shared goal of care and learning. Students learn from experience, defined as authentic, opposed to simulated human contact that help students understand health, illness and disease (Dornan et al., 2009). Students attending their clinical education are "immersed in the messiness and complexity of practice" (Levett-Jones & Lathlean, 2008 p. 104), and some experiences gained

here cannot be reproduced in a classroom or laboratory setting (ibid). In the clinical environment, theoretical knowledge is given a context, and this context also provides students with variation in symptoms, patient needs, treatment and patient reactions that are necessary to understand and function within their future profession.

An ongoing discussion within medicine- and health care education programs is the nature of the interplay between theory and practice. One overarching goal with these education programs is the integration between theoretical and practical knowledge internalized into a professional knowledge or competence. Students need to experience to learn and this experience must cover thought processes, emotional experiences and practical actions (Silén, 2013). Students learn by participating in the activities of the work place, especially those who are challenging. The experience of and need for participation varies according to students' attributes and seniority, and depend on the complexity of the clinical situation at hand. Supporting students to take part, demands being challenging as well as supportive. Support provides safety for students to encounter challenges. The practical outcomes of participation are the application of knowledge and acquisition of skills. Emotional outcomes include a sense of professional identity and experienced motivation and confidence (Dornan et al., 2009). Learning processes are not divided into theoretical and practical knowledge, but always one where understanding and action interacts. Thus, it becomes important not to create barriers for learning and instead see the clinical learning arena as context and meaning for understanding (Silén, 2013).

2.2 CONCEPTUALIZATION OF SELF-DIRECTED LEARNING AND AUTONOMY

In this section, the concepts of self-directed learning, self-regulated learning and autonomy are explored. The concepts originate from different research traditions and have different attributes, but are sometimes overlapping each other and used interchangeably.

Self-directed learning and autonomy in learning are connected to variables such as motivation, choice, locus of control, ability to seek and apply knowledge, ability to identify learning needs and to evaluate learning outcomes (Regan, 2003; Lee, Mann, & Frank, 2010; White & Fantone, 2010; Levett-Jones, 2005; Williams, 2004; White, 2006; Zimmerman, 1990; Miflin, 2004). Self-directed learning (SDL) and self-regulated learning (SRL) are both central components of

autonomy in learning with different emphasis depending on the origin of the concept definition, SDL with roots in adult education and SRL in cognitive psychology. The definitions of self-regulated learning stress issues regarding control, ability to make choices, moral, emotional and intellectual independence (Regan, 2003; Lee et al., 2010; White & Fantone, 2010; Levett-Jones, 2005; Williams, 2004; White, 2006; Zimmerman, 1990; Miflin, 2004). Lewett-Jones (2005) defines SDL with reference to Knowles as "*A process in which the individual take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes*" (p. 365).

Other authors such as White and Fantone (2009) and Williams (2004) point out the importance of motivation in SDL, acknowledging intrinsic motivation as more efficient than extrinsic. To develop self-directedness, students need to feel that they can influence the learning situation. Feelings of being in charge are connected to understanding the demands of the learning context and experiences of managing and getting feedback. Thus, students need challenges, support and feedback to become self-directed learners (Silén & Uhlin, 2008).

The concepts self-directed learning and autonomy in learning are often used interchangeably. In psychological terms, autonomy relates to motivation through self-determination theory, and can be understood as the inherited fundamental propensity of any living organism to be psychologically self-ruled and self-organized. Autonomy is shown as a fundamental need to experience self-governance and ownership of one's actions and therefore students have a need of autonomy in the learning environment (Chirkov, 2009). Personal autonomy is defined as the variable quality of being self-directing to the extent that one is in control of one´s destiny. Personal autonomy means capturing the spirit of time, embodying the democratic ideal, the ideology of individualism, the principles of humanism and the construct of adulthood (Kerka, 1999). Mezirow (1997) refers to autonomy as "*the understanding, skills, and disposition necessary to become critically reflective of one's own assumptions and to engage effectively in discourse to validate one's beliefs through the experiences of others who share universal values*" (p. 9). Self-determination theory distinguishes between controlled and autonomous motivating conditions. Controlled motivating conditions include external factors such as explicit or implicit rewards and punishments (Chirkov, 2009). Autonomous motivating conditions are driven by personal interest and perceived value, importance and meaning

(Kusurkar & Croiset, 2015), and include a sense of agency and choice (Albanese, 2010). Thus, essential for autonomy in learning, are perceptions of being competent, having intrinsic motivation as a driving force and a personal locus of control (Fazey & Fazey, 2001; Kusurkar & Croiset, 2015) i.e. common factors that emerge in autonomous behavior are intrinsic motivation, perceived control of decision-making, responsibility taken for the outcome of actions and personal confidence. Thus, autonomous learners must be in control of their decision making, take responsibility for their own actions and have confidence in themselves. Littlewood (1996) finds that the learner's ability and willingness to make independent choices is central to autonomy in learning. Whereas, White (2006) elaborates on the importance of motivation and states that motivation, autonomy and control in learning all have powerful external influences through educational setting, pedagogical structure and approaches, and that these influences can create intrinsic motivation per se.

Self-determination theory distinguishes between autonomy and independence (Ten Cate et al., 2011). Autonomy does not mean working on one's own, but working out of one's own choice with no feelings of pressure. Regarding patient care, this would mean giving students opportunity to handle patients on their own and to feel that they have support from supervisors even if they have an opinion that is different from that of the supervisor (Kusurkar & Croiset, 2015). Autonomy with structure is important for self-regulated learning and (Sierens e.t al., 2009) and autonomous motivation is associated with optimal challenge, creating flow when the challenge is right (Deci & Ryan, 2000) and feelings of being controlled when the pressure is too high. In line with this reasoning, William & Deci (1998) claim that behaving autonomously does not mean behaving independently, but rather behaving of one's own volition and in accordance with one's inner self. Thus, supporting autonomy in learning means not to be distant, vague or leaving students to manage on their own, but rather to set standards, create limits and give feedback in a way that provides choice, acknowledges feelings and lets students find solutions and answers on their own.

Eneau (2008) argues for the need to broaden the view of autonomy from simple questions of control, to questions about constructing personal identity, not only through the learning process, but also through the learner's interpersonal relationships. Eneau (2008) views autonomy as the prerequisite for development of individual identity, and identity (Eneau & Develotte, 2012 p. 16) as "*the subject's inclusion in a structured relationship of interactions*".

This means that autonomy is something that takes place "*through a reciprocity based on exchange and otherness*" and "*supposes that autonomy is born out of a realization of the interdependence of people who are summoned and bound to construct a social contract*" (p. 246). This view raises new research questions about the distinction between autonomous learning and the autonomous learner. In a more practical sense, a different view on learner autonomy could shed light on how autonomy could be constructed through concrete learning situations (Eneau, 2008). Eneau and Develotte (2012) show how autonomy in learning can be a process reaching the goal that is autonomy of the learner and how this autonomy has social, meta-cognitive and emotional dimensions.

In this thesis, autonomy is seen as an outcome of self-directed learning, which contains abilities and traits such as control, motivation, responsibility, ability to reflect and make independent choices, learning strategies and feeling of being in control. Conditions for self-directed learning and self-regulated learning are provided by the educational system in the form of e.g. epistemology, pedagogical ideas, curriculum construct, support and feedback. Problem-based learning is here considered to provide these conditions and enhance self-directed learning and consequently autonomy.

2.3 CONCEPTUALIZATION OF AUTHENTICITY

In this section, the concept of authenticity is explored, and definitions ranging from authenticity in the philosophical sense of leading an authentic life, to authentic education and teaching are shown.

Authenticity in a philosophical sense encompasses what genuinely defines people as who they really are, and what being human means to them. Cranton and Carusetta (2004a) define authenticity as socially situated, involving knowing who we are in our social world, understanding how we are shaped by that world and how we position ourselves in that world. Authenticity according to Cranton and Carusetta (2004b) is multifaceted and including at least four parts: "*being genuine, showing consistency between values and actions, relating to others in such a way as to encourage* their *authenticity, and living a critical life* "(p.7). Being critical in this sense is about critical reflection upon oneself and others, by Cranton and Carusetta (2004 a) described as becoming authentic through a transformative learning process.

Splitter (2009) connects educational authenticity to what it means to live authentically, and by doing so brings stresses that what lies at the heart of education is "*not learning, truth and knowledge, but thinking, meaning and understanding*" (p. 136). This heart of education is according to Splitter (2009), found in relationships – in a dialogical relationship between oneself and others – rather than in bodies of knowledge. Viewed in relation to curriculum development, what makes a curriculum, a problem or an assessment authentic, is not merely a correspondence to the likeness of what is in the world, but also to what it ought to be, thus introducing a moral or a value side to authenticity.

Van Oers and Wardekker (1999) define authentic learning as a dynamic relationship between development of personality and cultural practices. Authentic learning experiences are considered to play a role in the transition from student to professional practitioner (Sutherland & Markauskaite, 2012) and four different theoretical frameworks can be identified in literature regarding the nature and definitions of authentic learning (Stein et al., 2004; Sutherland & Markauskaite, 2012). These frameworks are 1. Real-world experiences that match characteristics of professional activity within a certain community 2. The sociocultural perspective offered by Lave & Wenger (1991) where students are allowed to begin interact with some of the routines, rituals and conventions of a profession within a community of practice, 3. Authentic learning defined by the student's perception of the authenticity by the task at hand, and 4. The context and the nature of the learning experience that must assist students to make connections between new experiences and current understanding. Kreber et al. (2007) propose that the genuine dialogue found in authentic relationships, as described by e.g. Buber (1954), translated to higher education, is a dialogue that centers on ideas that really matter to students. In a later study, Kreber (2010) claimed authenticity, or self-authorship, to be an important outcome of higher education and a prerequisite for students to cope with complexity and uncertainty. Authenticity described in a concept analysis performed by Starr (2008) was, among other attributes, as a process of self-discovery that can enhance the nurse-client relationship by mutual authentic participation. Daniel (1998) introduced vulnerability as a factor that gives nurses an opportunity to be authentic by recognizing vulnerability and suffering in oneself and others in mutual relationships.

Experiencing meaning and relevance is vital for learning (Marton & Booth, 1997). Studies in a clinical setting showed authenticity as an indirect driving force for learning by creating meaning and relevance (Manninen et al., 2013a; Manninen et al., 2013b). Furthermore, Manninen (2014) showed how authenticity in clinical learning was two-dimensional with external authenticity created by the educational system and the surrounding environment and internal authenticity as an experience within the student. External authenticity referred to the actual reality such as meeting real patients and being in a real clinical setting. Internal authenticity was achieved by students creating mutual relationships with patients, and having a sense of belonging. Internal authenticity can further be described as students' feelings of contributing and being a valid member of the team (McCune, 2009).

To gain insight into the meaning of authenticity in teaching in adult and higher education settings, Kreber et al. (2007) performed a literature review showing authenticity as a complex and multidimensional phenomenon. Authenticity in teaching involved features such as "*being genuine, becoming more self-aware, being defined by oneself rather than by others' expectations, bringing parts of oneself into interactions with students, and critically reflecting on oneself, others, relationships and context*" (Kreber et al., 2007 p. 41). For authenticity to be meaningful and not just lie in oneself, it needs to be sought in relation to essential issues. For education, these are issues of genuine interest and significance to the learner.

2.4 THEORETICAL STANCES

This thesis is ontologically and epistemologically grounded within the social constructivist-interpretative paradigm, meaning a non-dualistic view of the world or reality as complex, holistic and context dependent (Racher & Robinson, 2002; Packer & Goicoechea, 2000). Knowledge is constructed within social contexts and learning occurs in relationships with other people and within social practices. A non-dualistic worldview further means that it is not possible to separate the object (the world) from the subject (the experience or the interpretation of the world) (Gustavsson, 2001). The goal of research is to understand the complex world of lived experience from the view of those who live it. Focus is on the process by which meaning is created (Racher & Robinson, 2002). Knowledge and meaning is here seen, according to Ricoeur (1976), as consisting of both explanation and understanding.

2.5 RATIONALE FOR THE THESIS

What professionals encounter in their professional lives, are often not exact questions or well-defined tasks, but rather an important part of their knowing is to discern and create questions, problems and tasks from an unclear and incalculable situation (Molander, 2011). Within medical and health care education, the idea of self and of management of the learning situation is still stressed and not much attention is paid to the internal processes of learning involving responsibility and independence (Silén & Uhlin, 2008). Self-directed learning has historically often uncritically, been interpreted as independence of classes, courses and faculty (Miflin, 2004). Eneau (2012) claims that research on autonomy has for the last four decades focused on self-education, autodidactism and self-directed learning to the point of forging the prefix "self" with adult education, changing with the work of Candy 1991. Interpreting Candy, Eneau (2012) proposes two types of autonomy when speaking of autonomy in learning or of learning to be autonomous: "procedural autonomy" and "epistemological autonomy". Situational autonomy entails the organization of learning in an independent manner and managing to identify learning needs, set goals, make use of resources and so on, i.e. autonomy developed through and for learning. Epistemological autonomy on the other hand is a more complex form that comprises and goes beyond procedural autonomy and can be seen as the ability to make informed judgements about context and situations that influence learning and actions. It is about the ability to reflect critically on the world and entails a maturity of the intellect that helps us to understand that we are dependent on others and on the environment, linked to our condition as social beings with the demand to assume responsibility for actions and choices towards others, ourselves and towards the world (Eneau, 2012). From a knowledge and learning perspective, as well as from an ethical and legislative perspective, modern medicine and health care demands professionals that are able to function autonomously in the above epistemological sense of the concept. However, little is known about autonomy in an epistemological perspective when it comes to education and learning in medicine and health-care. In order to construct curricula that help develop autonomy and design clinical education that preconditions autonomy, we need to understand more about the meaning of autonomy, how autonomy is experienced and developed, and how autonomy impact qualitatively on learning, especially within the clinical context.

3 AIM OF THE THESIS

The overall aim of this thesis was to understand the meaning of the phenomenon autonomy in learning, related to medicine and health-care students' perceptions of learning and development in clinical education. This overall aim was achieved through four research questions, here represented by the aims in scientific papers I-IV.

- The aim of *study I* was to examine nursing students' perceptions of the meaning of nursing at the end of their graduate education. In order to reveal how students' perceptions might vary related to the educational design, one problem-based and one conventional curriculum were chosen.

- The aim of *study II* was to investigate the relationship between autonomy in learning and narratives of personal challenge and development in the context of student experiences in clinical education.

- The aim of *study III* was to explore situations that created experiences of autonomy and authenticity by analyzing them through variation theory and the threshold concept framework.

- The aim of *study IV* was to interpret the phenomenon of authenticity made visible in medical students' experiences of feeling like a doctor, i.e how authenticity took shape in narratives about feeling like a doctor in clinical situations where students were challenged to be independent and to a high degree make choices and clinical decisions.

4 METHODOLOGY AND RESEARCH DESIGN

The conducted research is positioned within the phenomenological hermeneutic research tradition, as described by Ricoeur (1976), describing and understanding phenomena and their meaning revealed through hermeneutics. As such, focus lies on understanding phenomena as represented in peoples' life-world and the interpretation of the meaning of these phenomena. One person's lived experience cannot be another person's experience, but the meaning of the phenomena involved can be shared by others through interpretation (Ricoeur, 1976). The meaning of a phenomenon in a person's life-world becomes visible through narratives concerning experiences of this particular phenomenon. The meaning of a phenomenon is integrated in human existence and it should be studied by learning about the lived experience. Through the description of the lived experience, that which is within and surrounding the human being, such as thought, emotion, and culture is captured. Thus, the lived experience of a phenomenon cannot directly be transferred, but the meaning itself can be transferred and as such become public and shared with others (Ricoeur 1976; 1985). It is argued here that the life-world is mediated through narratives where individuals' subjective understanding and sense-making of their life-world become visible

4.1 RESEARCH APPROACH

The research approach was qualitative and narrative, interpreting participants' experiences in a life-world perspective. The interpretation of meaning and lived experience is made possible through the tradition of phenomenological hermeneutics founded by Heidegger and further developed by Gadamer, and in the work of Ricouer (Lindseth & Norberg, 2004).

The studies in this thesis were undertaken using narrative inquiry, since stories are collected as a means of understanding experience as lived and told, through both research and literature (Clandinin & Conelly, 1994). Individual knowledge and experience become visible in narratives. The narrative does not flow freely, but is anchored in, and related to the narrator's life-world (Frid et al., 2000). Polkinghorne (1995) identified two types of narrative inquiry and modelling to Bruners' two kinds of reasoning or knowing, referred to them as paradigmatic and narrative (or non-paradigmatic) reasoning. These two different approaches to narrative inquiry will be further discussed under the section "Methods of analysis". The terms "narrative" and "story", will here be used synonymously and interchangeably.

The term narrative is used to explain human experiences and human-meaning making of materials and circumstances (Josephsson et al., 2006; Clandinin & Caine, 2008). This was important in this thesis as stories invariably reveal actual practices more than responses derived from interview accounts. Ricoeur (1985) suggests that narrative emplotment is a central function in the creation of meaning. Thus, "*meaning is seen as relational rather than as a stable entity for the individual*" (Josephsson et al., 2006 p. 88). Due to this relational aspect of meaning, findings in this thesis must be viewed as co-constructions between the participants and the researcher (Nyman et al., 2012; Clandinin & Caine, 2008). A narrative told by someone, is invariably a retrospective reconstruction, recreated in the setting of the research situation, and so the situation and the researcher must be considered. Narratives are always situated, and meaning derived from them is relational (Josephsson et al., 2006). For the purpose of narrative inquiry, a number of different methods of data collection are possible and data can for example be in the form of field notes, journal records, interview transcripts, autobiographical writing and observations. The sense of the whole is built from a rich data source (Conelly & Clandinin, 1990).

4.2 DESIGN

The studies build on each other and the results from the first study guided the design and aim of the next study. This approach was repeated throughout the thesis in a hermeneutic spiral-like design. All studies were abductively designed and analyzed, meaning that theoretical assumptions and underpinnings guided both the research aim, research method and analysis of findings. *An overview of the research design for studies I-IV is presented in Table 1*. Abductive reasoning is reasoning from concrete instances to an abstract conceptualization (Mezirow, 2003). Abduction starts with consequences and then constructs reason, i.e. abduction is a form of reasoning through which we perceive the observed phenomenon as related to other observed phenomena in the sense that there is a hidden cause and effect, or in the sense that the observed phenomenon is similar to other phenomena already experienced and explained in other situations. Abduction seeks a fit between observed facts and rules or theory (Timmermans & Tavory, 2012). The reasoning about abduction as a model for explanation is also connected to the idea that facts always are "theory loaded", i.e. that we always interpret what we see as we see it, and our view is always colored by a perspective. In the same way a radiologist does not see a collection of black and white shadows in an x-ray image, he or she discerns an image and a pattern, sometimes indicating a disease or injury. A layperson is literally "blind" to this image. Thus, data are always semantically framed which gives them their meaning (Alvesson &

Sköldberg, 2007). In an abductive analysis of data, theory is used before or together with the empirical data, not mechanically applied to individual cases, but as inspiration for discovery of patterns that create understanding. During the research process there is consequently an alternation between (earlier) theory and empirical data, where both are interpreted in the light of each other. Abduction is to, with the use of existing knowledge, find theoretical patterns or "deep structures", which if they were adequate should explain or help understand the empirical inductive patterns or "surface structures" that are observed or interpreted (Alvesson & Sköldberg, 2007).

Table 1 – *Overview of research design for studies I-IV*

Study	***Research focus***	***Participants***	***Data collection***	***Data analysis***
I	Nursing students' perceptions of the meaning of nursing at the end of their education	43 nursing students attending the last semester at one problem based baccalaureate nursing program and one nursing program with conventional educational design	Narrative inquiry, written stories	Phenomenological hermeneutic analysis of structure and content of narratives
II	The relationship between autonomy in learning and narratives of personal challenge and development in clinical education	Twelve students from four different educational programs. All students had started the clinical phase of their education, varying from semester 3-8	Narrative inquiry, unstructured interviews with two large open questions	Phenomenological hermeneutic analysis of event narratives. 25 core narratives analyzed using thematic analysis
III	Students' descriptions of situations that created experiences of autonomy and authenticity	Twelve students from four different educational programs. All students had started the clinical phase of their education, varying from semester 3-8*	Narrative inquiry, unstructured interviews with two large open questions	Thematic analysis. Theoretical analysis of data applying variation theory and the Threshold Concept Framework
IV	The phenomenon of authenticity made visible in experiences of feeling like a doctor, narratives about feeling like a doctor in clinical situations where students were challenged to be independent and to a high degree make choices and clinical decisions	15 medical students finishing their last (11th) semester at a problem-based medical program, towards the end of a seven-week clinical placement in primary health-care	Narrative inquiry, unstructured interviews with two open questions	Phenomenological hermeneutic analysis with theoretical analysis

*Participants in study II and III are identical

4.3 CONTEXT OF THE STUDIES

Context for studies I-IV are the students' clinical placements, at hospital wards and clinics in a primary care setting, or in some cases in a home care setting or a laboratory environment. Similar for all placements is the level of organization, i.e. that activities and learning objects are regulated in the different educational curricula. One of the two groups of informants in study I attended a problem-based nursing education. In study IV, all informants attended a problem-based medical education.

4.4 DATA COLLECTION

In this thesis, studies were undertaken using narrative inquiry and data was collected through written stories with one large open question (Study I) and unstructured interviews with one or two major open questions together with a wide range of follow-up questions to deepen, interpret, recapitulate and summarize answers and ensure thick description (Ponterotto, 2006) (Studies II-IV). A reflective logbook was used in connection to each interview in order to capture the researcher's reflections about the interview (Studies II-IV). Throughout the data collection (Studies I-IV), a form of critical incident technique was used for asking students to tell stories about significant and emotionally important events (Monroux, 2009; Rees et. al., 2013), which for the students had had an impact on their learning or development.

4.4.1 Study I

Based on the assumption that professional values and the philosophy of nursing are connected to the practical action of nurses (Fagermoen, 1997), nursing students in their last semester of three-year nursing program (one problem based and one more conventional curriculum) were asked to write narratives about nursing as they saw it in the actions of a nurse. The request was: *"Think back on your education and describe a situation where you saw a nurse being exactly as you yourself wish to be in your profession."* By describing real situations, what is within and around the human being is captured and thus knowledge and experiences become visible in the narrated story (Frid et al., 2000). The choice of students was based on the theoretical reasoning that students attending a problem-based curriculum with a higher degree of independence in the educational design might have another understanding of nursing as a subject matter due to this design. The data was collected in May 2004 and resulted in 43 written stories.

4.4.2 Study II

Twelve interviews were conducted with students from different educational programs, age, gender and background. Four students were medical students, four nursing students, two occupational therapy students and two studied to become biomedical analysts. All students had started the clinical phase of their education, varying from semester 3 to 8. Sampling was undertaken to achieve variation in order to find students with different experiences of and views on clinical education. Students were asked to tell stories about situations from their clinical practice which had entailed some sort of personal development and some sort of difficulty or set back. No direct questions about autonomy or self-directedness were asked. Stories were captured by asking two very open questions: *"Tell me about a clinical situation you felt was important to you, a situation that has stayed with you, where you felt that you developed, went forward, learned something" and "tell me about an opposite situation."* To be able to achieve as rich narratives as possible, a large amount of follow-up questions were asked.

4.4.3 Study III

Study III is a reinterpretation of the same narrative data as in study II and accordingly the data collection process is similar. For the purpose of this study, the units of analysis were the situations chosen by the students, and the phenomena linked to these situations, i.e. focus shifted from data regarding the experience itself to the situations surrounding this experience.

4.4.4 Study IV

Fifteen interviews were conducted with medical students finishing their last (11th) semester at a problem-based medical program, towards the end of a seven-week clinical placement in primary health-care. All but two primary health-care providers (affecting three students) were active in an educational development project called "academic primary health-care", supporting learning for students, staff and patients and strengthening relationships between health-care and university. Stories were captured by asking two open questions: *"Tell me about a situation or situations when you feel like a doctor"* and *"Tell me about a situation or situations when you do not feel like a doctor"*. These questions were chosen to gain rich narratives and ensure a wide scope of inquiry. To be able to secure as rich narratives as possible, a wide range of follow-up questions were asked. To check the interviewer's understanding, recapitulation and summaries were used during the interviews.

4.5 METHODS OF ANALYSIS

The paradigmatic approach to narrative inquiry, by Polkinghorne (1995) identified as analysis of narratives, entails moving from stories (collected as data) to common elements producing a thematic structure that can cut cross the stories to produce general concepts (Kramp, 2004; McCane et al., 2001). This can be done deductively by applying theory to data or inductively by letting themes emerge from data (MCCane et al., 2001). The second type of narrative inquiry, narrative analysis, is based on narrative reasoning and moves from the particular data collected to a construction of stories. You as a researcher construct the story using data collected in each story, by Kramp (2004) called a "storied analysis". In narrative analysis, data become integrated in the story, instead as with analysis of narratives, separated. The story that is written: "*must fit the data while at the same time bringing an order and meaningfulness that is not apparent in the data themselves*" (Polkinghorne, 1995 p.16). This type of analysis uses plot to tie together individual experience in order to create a context that helps understanding and give meaning to experience. The outcome of this analysis is a narrative or set of narratives (McCane et al., 2001). Studies I, II and IV, rest on paradigmatic narrative reasoning, whilst study III apply narrative analysis and the construction of stories, however after a theoretical analysis of the collected data.

Analysis of data in this thesis rests heavily on the work by Ricoeur. Geanellos (2000 p. 113) describe how Ricoeur view interpretation as the "hinge" between language and lived experience and that this especially applies to the case of research interviews where the lived experience of informants is expressed through language in a transcript of an interview (Geanellos, 2000). Through a constant movement between the whole and the parts the meaning of narratives appear. The movement in this hermeneutic spiral is made possible through Ricoeur's (1976) thoughts on closeness and distance, between explanation and understanding. To investigate a text is to move between closeness and distance. Explanation and understanding are according to Ricoeur (1976) two overlapping parts of the textual meaning. In the explanation, the parts and their meaning are revealed, and then again unified in the interpreted wholeness of the text. To explore the textual structure, the lingual internal interrelationships are explored.

This investigation of a textual structure is part of the distanciation from the text, to distance oneself from the person telling the story to the story itself, to the lingual expression.

Methodological distanciation means objectifying the text by freeing it from the author's (research participant's) intentions or meanings and giving it a life of its own. This should not be confused with objectification of a text as Ricouer's theory links "knower with known" (Geanellos, 2000 p. 113), i.e. recognizes an ontological presence in all knowledge.

Interpreting a text means moving beyond what a text says (explanation) to what it talks about (understanding) (Ricoeur, 1976). Understanding of a text comprises all parts combined to a new whole, and in this process the pre understanding, or appropriation, is a vital part. Explanation and understanding are according to Nygren & Blom (2001) included in the superior concept of interpretation. Interpretation starts in a naïve way, when the interpreter grasps the meaning of the text as a whole, and then moves on to a deeper understanding of the text through analyzing the parts in relation to the whole. This continual movement between the parts and the whole in a hermeneutic circle or spiral, allows for the understanding to be enlarged and deepened. This deepened understanding may confirm or reject the naïve understanding (Geanellos, 2000).

4.5.1 Study I

The aim of study I was to examine nursing students' perceptions of the meaning of nursing at the end of their graduate education. 43 narratives were analyzed using the phenomenological hermeneutic method as interpreted by Strandberg (2002) and Söderberg (1999). According to this method, the analysis deals with both structure and content of narratives. The structure analysis was performed by analyzing the focus of the stories, metaphors, what concepts were used, and how frequently. In order to shed light on the internal linguistic structure of the narratives, the number of nouns, adjectives, and adverbs was counted. Descriptions of professional boundaries and central questions for nursing were identified. Finally, meaning units concerning nursing were extracted from the stories and divided into themes. The two different groups of students were each analyzed separately, but a comparison of each part of the analysis was made between the two groups throughout the process.

4.5.2 Study II

The aim of study II was to investigate the relationship between autonomy in learning and narratives of personal challenge and development in the context of student experiences in clinical education. Twelve interviews were conducted with students from four different educational programs. All participants had started the clinical phase of their education. Students were asked to relate experiences from their clinical education that had entailed personal development or difficulty or set back. In this study, analysis of stories has been undertaken, partly by using event narratives such as those described by Labov and Waletsky (1967) with a general structure that includes abstract, orientation, complicating action, evaluation, resolution and coda, and partly by creating categories. In the analysis, we draw on Ricoeur's (1973) identification of distanciation as the element that creates space and freedom in the interpretation of the material.

Distance was created through the structure of the data analysis. Data analysis started with a naïve reading of the interviews, thereby creating a naïve understanding of the text and the narratives, and moved forward to more interpreting steps. All twelve interviews provided very rich in-depth data and a large textual material. Thus, narratives were refined examining issues of challenge and development in the clinical setting by extracting irrelevant and redundant information from the data. This analysis was made using event narratives or "small stories" (Georgakopoulou, 2006) to examine the actual narrative from the whole interview account and was repeated four times to ensure that all significant data were extracted. After each time, the story was read together with the original interview to ensure that no narrative elements concerning challenge and development were lost. Through this constant movement between the whole and the parts in the narratives, an interpreted meaning emerged. The final part of the analysis was performed through the creation of core narratives speaking in shorter, but cohesive and coherent, terms about the students' experiences of challenge and development (Mishler, 1991). These core narratives can be seen as condensed narratives representing students' experiences. This process resulted in 25 core narratives, two narratives per student in all but two cases. Finally, these 25 core narratives were analyzed with regard to similarities and differences in interpreted meaning, resulting in four themes expressing the experiences of the participants.

4.5.3 Study III

The aim of the third study comprising this thesis was to explore students' descriptions of situations that created experiences of autonomy and authenticity by analyzing them through variation theory and the threshold concept framework. Data analysis of the same data as in study II was undertaken to examine data for phenomena that held attributes of threshold concepts and the surrounding situations that gave them meaning. Although this study was performed with the same data as in study II as the subject of analysis, new questions posted and the theoretical frameworks applied provided new perspectives and robustness of findings. In this study we proposed to further illuminate the experienced phenomena of autonomy and authenticity by analyzing critical features of these phenomena and the surrounding situations that gave them meaning. In doing so we applied variation theory in the search of critical features of phenomena. In this theoretical analysis we also applied the Threshold Concept Framework developed by Meyer & Land (2005). The Threshold Concept Framework is described as transformative and with a new understanding of discourse by extending the natural, formal or symbolic language. It is also described as a liminal space with stuckness and disjunction, as oscillation between states, as being irreversible and integrative, and constituting a transconfiguration of self and of identity as well as being a loss of previous security and as being troublesome and bounded. In the first phase of the analysis it became evident that the theoretical analysis only functioned on units of description that had a "breakthrough character" i.e. episodes that had an "aha-moment". Mapping of narratives was adopted, a process suggested by Savin-Baden & van Niekerk (2007), following Denzin, in which narratives can be explored analyzing epiphanies. Denzin (1989) proposes four different types of epiphanies: cumulative, illuminative, major and relived epiphany, each with different degree of impact on people's lives, ranging from minor impact to life-changing insights. In this study, the unit of analysis was the illuminative epiphany that is seen as "*a point in time or particular experience that reveals insights; or an event that raises issues that are problematic*" (Savin-Baden & van Niekerk 2007 p. 465). Following this line of reasoning, together with the above outlined theoretical reasoning around threshold concepts/conceptions, the "aha-moment" is a narrated epiphany that may contain threshold concepts/conceptions.

The theoretical analysis of the narratives was conducted in three dimensions. The first dimension consisted of a naïve reading and interpretation of the whole. Concretely, this was the identification of the situation itself with its features in relation to the demands for discernment and for possible threshold capabilities, i.e. the search for illuminative epiphanies.

The second dimension consisted of the search for threshold conceptions i.e. the student's subjective interpretation of the situation and of the critical aspects of this situation and the phenomena involved. The most abstract dimension was the search for threshold concepts, the underlying theoretical constructions of phenomena, and the critical aspects of these phenomena. We searched for similarities in critical aspects of the situations that might be the same although the situations themselves were different. To further advance the analysis, we used the theoretical construct by Land et al. (2014) of the cognitive tunnel or liminal space. In order to tie together the individual experience and create a context that creates understanding and meaning of this experience, a set of narratives was constructed.

4.5.4 Study IV

The aim of the study was to interpret the phenomenon of authenticity made visible in medical students' experiences of feeling like a doctor, i.e. how authenticity took shape in narratives about feeling like a doctor in clinical situations where students were challenged to be independent and to a high degree make choices and clinical decisions. In this study, the ambition was to further explore the phenomenon of authenticity and fifteen interviews with medical students finishing their 11^{th} and last semester of a problem-based medical program towards the end of a seven-week primary health-care placement were analyzed. Data analysis consisted of three parts, inspired by the phenomenological hermeneutic method for interpretation as described by Lindseth and Norberg (2004). Data analysis consisted of a naïve reading, a structural analysis and a comprehensive understanding or interpreted whole. According to Lindseth and Norberg (2004), there are different ways to perform a structural analysis, one being to ask questions of the text and gather information that answers those questions. For the purpose of this structural analysis, an analysis was undertaken where meaning units, i.e. condensed narrative elements about feeling like a doctor, were extracted and sorted together with keywords/concepts belonging to the existing problem areas from the naïve reading. Each keyword/concept gathered several meaning units, thus ensuring that all keywords/concepts had "coverage" in the lived experiences in the narratives. The combined meaning units were read again and this analysis resulted in a thematic structure of the text with an overarching theme that expressed the overall meaning of themes. The themes and the overarching theme were reflected on in relation to the naïve understanding to validate or invalidate that first interpretation. The comprehensive understanding or the interpreted whole, was arrived at by reflecting on the themes and the overarching theme in relation to the research

question and the field of human life that is investigated. The preunderstanding of the researcher was analyzed in relation to findings. Using literature, that helped revise, widen and deepen understanding, a theoretical analysis was performed. The overarching theme “Need for attachment”, was analyzed and illuminated through a model for transformative learning and authenticity in a clinical education ward, as seen in the findings from Manninen (2014), and through the theoretical framework of Communities of Practice (CoP).

4.6 TRUSTWORTHINESS

Criteria for determining trustworthiness of qualitative research were introduced in the 1980s by Guba and Lincoln, thus introducing the concepts of dependability, credibility and transferability (Morse, 2015). Since then, these criteria with minor adjustments have been in use for ensuring rigor in qualitative research. In later years, reflexivity has been increasingly recognized as a crucial strategy in the process of generating knowledge by the means of qualitative research (Berger, 2015).

Morse (2015), however, advocates for the return to the terminology of main-stream social science using rigor as concept instead of trustworthiness and to replace dependability, credibility and transferability with the generally used reliability, validity and generalizability. Polkinghorne (2007) reasons about validity and the validation process of narrative research, although positioning himself within the reformist community in social science research. Within educational science, voices such as Larsson (2009) have risen to argue for the need of an elaborated discussion on generalization and suggests a pluralist view on the concept as a broadening of the often dualistic interpreted concept of transferability. Larsson (2009) continues by providing five qualitatively different lines of reasoning regarding generalization within qualitative research, two of which do not need generalization at all due to the nature of the empirical research, and three other lines of reasoning that contain generalization through maximizing variation, context similarity and recognition of patterns. Other authors present different views on how to ensure quality of qualitative data; Savin-Baden (2004) explores the use of reflexivity to help move the researcher away from analysis of data to interpretation in a more individualistic and free process, whereas researchers such as Kitto et. al. (2008) have proposed a more standardized approach to criteria, ensuring rigor and relevance for qualitative research.

In this thesis the concepts credibility, dependability and reflexivity are used, but we will also elaborate on transferability contrasted with generalizability achieved through variation, context and patterns, thus highlighting the abductive research approach in this thesis in regards to rigor.

4.6.1 Credibility

Credibility refers to the confidence in the truth of data and in the interpretation of data (Polit & Beck, 2008), i.e. the suitability of the chosen methods for data collection, data analyses and data presentation to answer the research question (Graneheim & Lundman, 2004).

The large open questions featuring in this thesis generated rich and thick descriptions of the investigated phenomena. Informants were chosen to ensure variation. Participants had much to say and contribute to the investigation of the researched phenomena. The development and use of interview guides enhanced credibility. Characteristic for the interview process was a good climate and a good relationship with the informants. I believe I came close to the informants, thus allowing me to be invited into their world. The number of follow-up questions and validating questions asked during the interviews also ensured a depth in the interviews. Data analyses were carried out with great care, with more than one interpreter reaching consensus, and with adherence to methods described in each article's method description. In the presentation of findings, quotes were used to enhance credibility. As a whole, the research process in each study is transparently described, and stances and choices are motivated and explained.

4.6.2 Dependability

Dependability refers to the stability of data over time and conditions (Polit & Beck, 2008). In each of the studies, the data collection proceeded over a quite short period of time, thus making the context of the interviews rather stable. However, each interview is unique and so the conditions and context surrounding it, and as such there are always factors that differ between the situations. Taking into account the openness of the interview guide, each interview, even though different, all remained quite consistent in their approach and outline.

4.6.3 Reflexivity

Reflexivity means self-appraisal in research and turning the researcher lens onto oneself to observe, evaluate and take responsibility for one's own situatedness within the research. Reflexivity thus challenges the idea of being able to generate knowledge independent of the researcher and of this knowledge as objective (Berger, 2015). The position of the researcher such as gender, age, personal experience and theoretical stances and so on, impact each part of the research process and the researcher - researched relationship, which in turn affects the information that informants are willing to share. The worldview and background of the researcher affects everything from how he or she constructs the world, to language used and meaning making, thus having a large impact on the interpretation of findings (Berger, 2015).

My background as a nursing student in a problem based nursing program is of vital importance to my understanding of the phenomena under study. And so is my background as a teacher in both a problem-based nursing program, and in a more conventional nursing program, contributing to this understanding. As Head of Program for some years and as a developer of new courses within that same program, as well as for courses for graduated nurses, I have an understanding and knowledge of the more organizational side to education and clinical education. As a registered nurse, I have taken care of patients and encountered students in the clinical environment. As a researcher and doctoral student in medical education, I have formed my understanding of learning as social phenomenon in a context, dependent of others. This professional background helped me gain trust and create a relationship with the students that I interviewed. A downside to understanding the situations related during the interviews is that I might have missed information as both the informants and I myself thought this unnecessary to elaborate on. I do believe that my personal experience and knowledge of the field have helped me discern and detect things I could never have seen without this experience, especially during the data analyses phase. I remained observant about my own reactions and feelings during the interviews and also wrote a short reflective journal after each interview. This helped me detect where and how my person could have impacted on the process. In general, I have observed that I am an quite active interviewer, but I can also see how this belongs to my personality and thus enabled me to create a real and authentic relationship with the students I interviewed as I was really myself. It is my belief that this resulted in deeper narratives and thicker descriptions. However, as Savin-Baden (2004) puts it: "*one of the difficulties with reflexivity is that how you see it depends upon where you are coming from*" (p. 266).

Savin-Baden (2004) describes how we only by situating ourselves in the research can begin the process of reflexive interpretation, and that shift between analyzing data and interpreting data can be as a personal epiphany and a transition as we begin to accept the messiness of data and embrace its complexity. This shift entails abandoning deconstruction and is a shift away from categorization to a more overarching perspective. I believe that this was achieved in study IV, but as Savin-Baden (2004) expresses it, it was a disjunction where I really questioned my role in findings and my interpretation of them.

4.6.4 Transferability

Transferability refers to the generalization of data and the extent to which findings can be transferred to, or have applicability in other settings or groups (Polit & Beck, 2008). Authors can give suggestions about how findings can be transferred, but the decision lies with the reader and is facilitated by a clear and distinct description of the context and the research process. A rich description of findings with quotations will enhance transferability (Graneheim & Lundman, 2004). Larsson (2009) argues for generalization of findings by maximizing variation, and covering a maximum variation of situations covering the phenomenon under study. This was achieved in this thesis as a whole by studying the phenomenon of autonomy from different perspectives and situations and in each separate study by maximizing the variation of participants. Larsson (2009) further argues for generalization (and as we have seen above for the use of this concept) through context similarity and recognition of patterns. As a way of drawing conclusions about context similarity, Larsson (2009) refers to the use of Geertz "thick description" and interprets this as context entailing both description of circumstances and behavior, but also the interpretation of these. Generalization through the recognition of patterns, Larsson (2009) describes as being able to use the interpretation of a piece of research to make sense of other processes or phenomena. I draw the conclusion that this has similarities with abductive reasoning as described earlier in this background. The use of theory in the interpretation of data in study III and IV in this thesis allows for a high degree of transferability and widens the possible contexts to which findings can be applied.

4.7 ETHICAL CONSIDERATIONS

The studies in this thesis are designed and conducted in accordance to research-ethical principles for humanistic and social research (Vetenskapsrådet, 2002) and following national ethical guidelines for research involving human subjects (SFS: 2003:460). Studies were approved by the Regional Ethical Review Board in Stockholm (2010/5:8). Ethical principles guiding the project are the principle of autonomy, the principle of beneficence, the principle of non-maleficence and the principle of justice (Vetenskapsrådet, 2002; Northern Nurses' Federation, 2003) and adheres to the principles of autonomy, integrity and anonymity by informed consent, secure data processing, transparency and minimality, and lawful data collection. Another ethical aspect of studies is the aspect of credibility and the demands of the chosen scientific method. The researcher should have good knowledge of methods and should possess the competence required by the project, both for the collection and processing of data (Northern Nurses' Federation, 2003). The question of dependency also becomes an issue in these studies because of interviews as a mean of data collection as opposed to a more anonymous research method. Participants are in a way more known to the researcher and this could be interpreted as an exposure to a "risk" for the students; a risk of being judged or assessed on the basis of what they say in the interviews. In these studies, the researcher had no previous knowledge about or connections to the participants previous to or after the studies to minimize the risk of any dependency issues. Participants were ensured that the researcher would not fulfil any teaching or assessment during the remaining period of the students' education. Participants in all four studies received an information letter where the aim and context of the study were described. The letter stressed voluntarism and pointed out the right to confidentiality and to stop taking part in the study at any given time and without having to declare any reason. Contact information to the authors was given and questions were encouraged. Each interview opened with a presentation of the study and with participants again reading the information letter and signing the informed consent paper. Again, confidentiality and the right to abort were highlighted.

5 FINDINGS

The overall aim of this thesis was to understand the meaning of the phenomenon autonomy in learning, related to medicine and health-care students' perceptions of learning and development in clinical education. In this section, a comprehensive description of synthesized main findings is provided. *Figure 1* shows how autonomy in these four studies was shaped of and given meaning by: *Autonomy as a qualitatively different view of a discipline, Autonomy as a social phenomenon,* and *Autonomy as authentic experience.* Main findings are here presented under these headings and the contributions from studies I-IV are specified. The section ends with a thought model depicting the interrelatedness of findings *(Figure 4).*

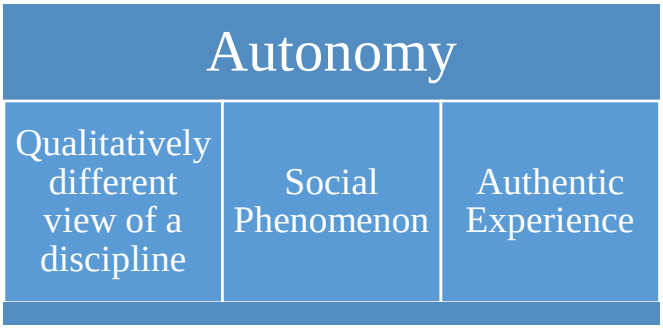

Figure 1 – *Autonomy as a qualitatively different view of a discipline, as a social phenomenon and as authentic experience*

5.1 AUTONOMY AS A QUALITATIVELY DIFFERENT VIEW OF A DISCIPLINE

When contrasting students from a problem-based curriculum with students from a more conventional curriculum regarding perceptions of nursing, analysis of data showed differences in terms of both structure and content of narratives. Findings consist of two parts: categories representing similarities between the two groups and categories found only in the problem-based student group. Categories showing similar perceptions of nursing in both groups were categories of narratives representing the nurse-patient relationship and the importance of meeting multidimensional needs; *Nursing as a caring relation*, *Nursing as a way of being* and *Nursing as satisfying multidimensional needs.* Categories that were unique to the narratives from the problem-based student group pointed out the importance of the professional role, the need for reflection and a theoretical foundation for one's actions. Here, students focused more

on the intellectual aspects of nursing expressed in views of nursing as an independent profession with its own theoretical foundation. Another unique feature of the narratives from the problem-based student group was the level of abstraction generated in each narrative, placing the specific situation in a broader and reflective perspective. The need for nursing interventions to have a theoretical foundation was also pointed to in the problem-based student group together with the described importance of clinical judgement and the ability to apprehend, estimate and decide on proper actions related to every unique clinical situation.

5.2 AUTONOMY AS A SOCIAL PHENOMENON

Dependence of the clinical supervisor was described as dominating the clinical learning experience. The relationship with the supervisor could be developed when students felt safe and comfortable, but also as something that slowed learning down if students perceived themselves as unequal or without control over the situation. The relationship was described as developing when providing challenge as well as safety and comfort. *Feelings of ambivalence* were constantly present in the clinical experience and varied over time depending on context. Ambivalence was perceived regarding independence and support provided by the clinical supervisor, as well as regarding the need to perform and try for themselves at the same time as needing feedback. A familiar context strengthened the ability to be independent and lessened the need for supervisory support. *Professional becoming* was defined as feelings emerging from the sense of being a "real professional" when given the opportunity and trust to play a role in patient care and in patients' lives. Professional becoming also appeared in situations where students were given the opportunity to take a moral responsibility for the patient. Findings were analyzed from a social perspective on autonomy (Eneau, 2008) and through this analysis of findings we suggest that autonomy should be regarded as something that develops in relation to others and not as a merely individual phenomenon.

5.3 AUTONOMY AS AUTHENTIC EXPERIENCE

Findings from study III illustrate how a practical experience, entailing the student as the "doer", can have the same power to transform thinking and professional identity as do theoretical threshold concepts, therefore making the discussion about thresholds in practice possible. Findings show how transformational learning was created through authentic clinical experience, and although there are many elements at play regarding the influence of the

practical experience on transformational learning, findings from study III could be read as an attempt to infuse the discussion about threshold concepts. The main finding from study II was that students' narratives featuring experienced development or challenge, all focused on experiences of more or less perceived autonomy – or the lack of autonomy. The themes are representations of this perceived autonomy and its implications for students in different clinical contexts. Findings consisted of four themes: *Dependence of the clinical supervisor, Feelings of ambivalence, Professional becoming* and *Need for authenticity*. All themes were exclusive except *Need for authenticity.* While this theme also describe a core issue, it transcended the other themes, and should be read as a cross-sectional thread through findings, and as a prerequisite for experiencing autonomy. The core issue in *Need for authenticity* was that authenticity was a prerequisite for feelings of development and learning in clinical education. Situations needed to be real to have importance and to make an impact on students' learning by creating feelings of relevance and meaning. An authentic situation was characterized by the students' decisions and actions having an effect on the patient's situation. The main finding of study II was the aspect of autonomy related to feelings of authenticity. Findings were analyzed from a social theory of learning perspective (Wenger, 2010), and through this analysis of findings, we suggest that authentic clinical situations enhance students' experiences of autonomy.

5.3.1 Authenticity leading to change in professional identity

In study IV, authenticity as a phenomenon was further explored by asking medical students when they "felt like a doctor", and analysis of data resulted in a thematic structure of findings; Opportunity to experience authenticity through: *Creating relationships, Responsibility and independence, Managing wholeness and follow up processes*, and *Being able to reason and discern.* Overarching all themes was the perceived need for attachment, *i.e. attachment to patients, to supervisors, to the workplace, to the situation and to reasoning and knowledge (Figure 2)*. Detachment was perceived when students experienced that clinical supervisors interfered with these processes or with relationships created by the student.

Creating relationships was vital for experiencing authenticity and encompassing feelings of belonging and to be recognized by others as fulfilling a role. Relationships experienced as important were those with the clinical supervisor and with the patient, but also with other professional categories. *Authenticity through responsibility and independence* was experienced

when students were given opportunity to handle patient cases and interact alone with patients and to decide on the course of action. *Authenticity through managing wholeness and follow up processes* created a new dimension of learning with feedback on actions taken and a new perspective on the whole process of the patient's care. Experiencing *Authenticity through being able to reason and discern* highlighted the need to be able to think like a doctor when it came to discerning relevance between variables, prioritizing and connecting theory and clinical findings.

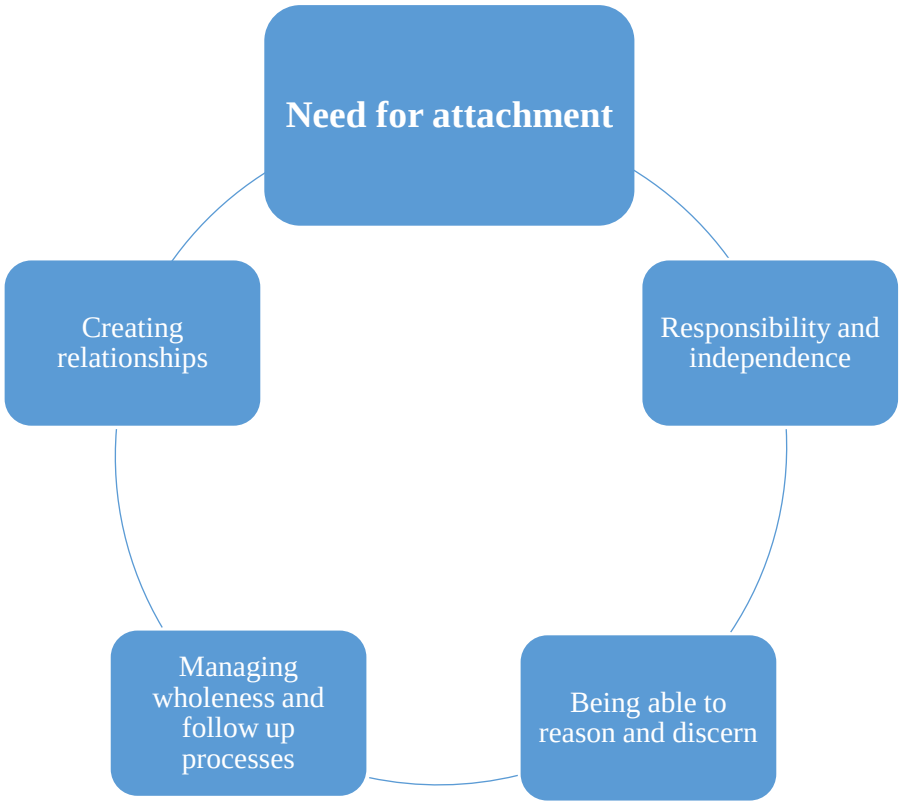

Figure 2 – *Opportunity to experience authenticity through: Creating relationships, Responsibility and independence, Managing wholeness and follow up processes and Being able to reason and discern. Overarching all themes is Need for attachment.*

After extending the analysis of findings, decontextualizing findings, and creating a new comprehensive understanding with the help of a model for authenticity and transformative learning, we were able to deepen the comprehensive understanding further by applying the theoretical framework of Communities of Practice (CoP). Thus, authenticity made visible in students' experiences of "feeling like a doctor", here interpreted as internal authenticity, was equal to perceived membership of the CoP of the primary health-care placement. This perceived membership was achieved by being able - and allowed - to take part in practice, and to be able to create meaning out of that practice. Creating relationships that enabled part taking and experiences of internal authenticity, was essential for transformative learning processes resulting in the experienced change in professional identity *(Figure 3).*

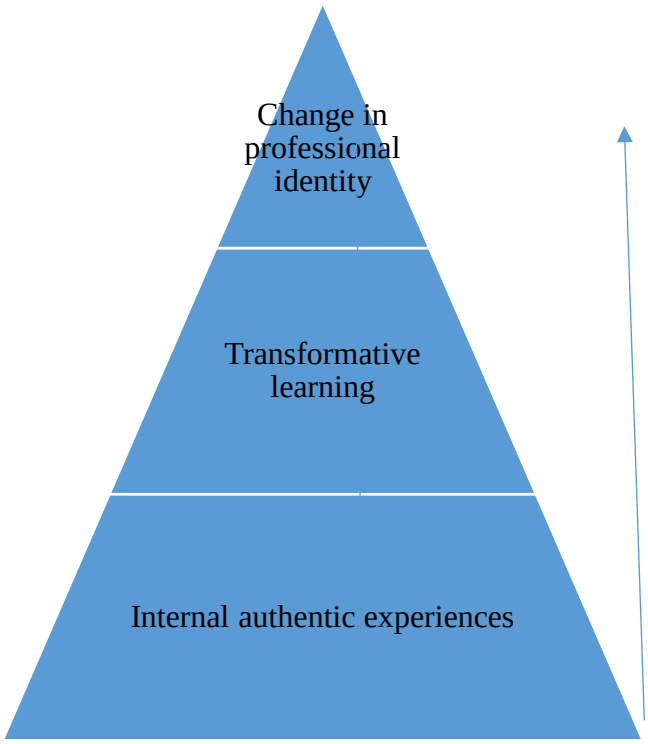

Figure 3 – *Internal authentic experiences leading to transformative learning and a subsequent change in professional identity.*

5.4 OVERVIEW OF MAIN FINDINGS

This thesis shows autonomy in learning as a deepened and qualitatively different understanding of nursing in a group of nursing students from a nursing program with a high degree of independence in the pedagogical design. This understanding manifested through an ability to connect theory and practice and through abstract thinking. Findings show how autonomy in learning constitutes a social phenomenon and something that evolves in relation to others. Findings in this thesis also display connections between autonomy in learning and experiences of authenticity in clinical education. Furthermore, findings indicate that transformative learning processes contribute to the development of professional identity and can be triggered by authentic experiences (here interpreted as internal authenticity), and the perceived meaning of these experiences. Authentic clinical experience was a prerequisite for experiencing membership in a community of practice, thus making internal authenticity a component in the development of professional identity. *Figure 4 depicts the interrelatedness of findings.*

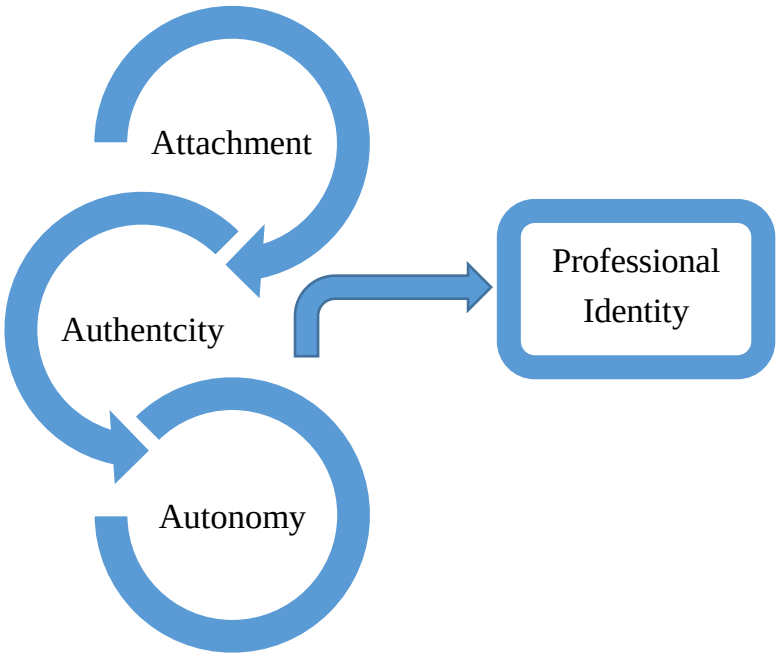

Figure 4 – *The interrelatedness of findings: Attachment as a condition for experiencing Authenticity and Authenticity as a prerequisite for Autonomy and as leading to a Change in professional identity.*

Findings show that there was a need to belong and take part in order to experience authenticity, which in turn, created autonomy. Students perceived a need for attachment, i.e. attachment to patients, to supervisors, to the workplace, to the situation and to reasoning and knowledge Authenticity was enhanced when relationships with supervisors, patients and other professional categories were formed. Thus, here *attachment* is a condition for experiencing *authenticity,* and authenticity is a prerequisite for *autonomy*.

6 DISCUSSION

Through analysis of the phenomenon of autonomy, we have gained insight into the close connections between the phenomena autonomy and authenticity, and into the social dimension of both phenomena. Further, we have been able to show a possible link between how autonomy and authenticity are dependent on each other and on how both are dependent on the creation of relationships, thus contributing to understanding of what is of importance for clinical education. Findings from this thesis suggest that in order to create autonomy in learning in clinical education, it is important to move away from the image of the independent learner who is learning from the patient, to a learner who learns together with the patient in a reciprocal relationship and who learns together with peers and other professionals. The importance of attachment advances our understanding of how we should organize clinical education, provide opportunity for students and support them to form relationships with patients, future colleagues, other professional categories, and with each other as learners. By seeing autonomy as a social phenomenon there are implications for clinical education, for example in the way clinical studies are organized regarding the level of student engagement in the clinical workplace, the length of the clinical placement and how to make use of the student's knowledge.

6.1 THE CLINIC AS A LEARNING SPACE

Returning to variation theory, the space for learning is the potential for variation, or difference, provided by the situation, not the situation per se. Runesson (2006) defines the learning space as a space created of dimensions of variation of critical aspects. In the light of these definitions, clinical education, and specifically the clinic, provides a powerful arena for learning, as every patient encounter and every situation surrounding these encounters are different and varied. The learning space related to these definitions is not the physical place "the clinic", but rather the relationships formed, patients encountered and experiences related to these encounters. Savin-Baden (2008) speaks of learning spaces as, while also physical, mostly mental and metaphorical and refers to Lefebvre when identifying university learning space as the very nature of higher education itself, namely space as social and a tool of thought and action. Kitto et al. (2013) lean on other definitions of space and place, referring to geography and environmental studies. Space is here defined by geographic location and material form, whereas place, on the other hand, here is defined as both location and material form, but also as the meaning and value associated with it. For the purpose of this discussion, we will remain with "space", bearing in mind that space naturally also entails the physical dimension.

Transitional learning spaces according to Savin-Baden (2008) are spaces encountered when a challenge prompts us to reconsider views and perspectives. These spaces are characterized by a sense of movement from one position to another and can often be difficult and disturbing, disjunctional and liminal. Such spaces can lead to transition or even transformation. Transitional spaces are "becoming, moving and repositioning", whereas transformational spaces are more complex and involve an identity shift (Savin-Baden, 2008 p. 74).

So, bearing the above thoughts on learning spaces in mind: what do we need to do to create a learning space in the clinical arena, in clinical education? The answer is, somewhat provocatively, maybe nothing. The clinical arena or clinical education already offers a space for variation, transition and transformation. However, we need to enhance possibilities for students to experience the space as such, by reinforcing and strengthening their possibilities of attachment, authenticity and autonomy leading to change in professional identity *(Figure 4)*. We also need to strengthen the clinic as a learning space by discussing these issues, and raising awareness of them among clinical supervisors and providers of clinical education.

The need for attachment, authenticity, autonomy and the connections to professional identity, will here be further discussed by showing ways of enhancing these qualities in the clinical learning space. Although, "clinical education" is a large concept that can have many meanings, connotations, and vary in different context, we have kept the description of the concept general. We believe that the issues discussed here are applicable to any interpretation of the clinical learning space or clinical education.

6.1.1 Enhancing attachment

The term "attachment" in findings were here chosen before the similar and partly adequate term "belonging" because of the, by us, perceived connotations connected to "attachment" as something you actively do, a bond actively formed – as opposed to the more passive "to belong". Theoretically, we lean on the definition of "school attachment" provided by Dworkin referenced in Mouton et al. (1996 p. 298) stating that school attachment is "*an affective attachment that an actor has to a person, object, role, or setting such that the probability of perseverance and continuance of a relationship to that person, object, role, setting is enhanced*". Literature however, show how various concepts from different research fields have

been used to describe similar phenomena such as among others: “School connectedness” (psychological state, cared for, trusted and respected) (Whitlock, 2006); “Connectedness to the university” (fit, be accepted, respected, included, supported) (Wilson & Gore, 2013), and “Belongingness” (need to be involved with others, being part of, feeling accepted and fitting in, being cared about, valued and respected) (Levett-Jones, 2007a; 2007b; 2008).

We have in this thesis chosen to speak of “autonomy in learning”. Eneau (2012) recognizes that the idea of autonomy in education and training is ambiguous and hard to define, but states that autonomy cannot be reduced to self-sufficiency, since being autonomous simply does not mean to manage without others. Referring to the work of French researchers such as Gaston Pineau and Jean-Marie Labelle, Eneau (2012) stresses that we learn with and through others and we meet people at different stages of our lives who help us create who we are. This is achieved through constant relationships of “attachment and detachment, dependence and emancipation” (p. 30). The question is *why* we need “the other”, this temporary dependence that in the end is intended to set us free, Eneau (2012) asks, and continues to state that research into this important question is scarce. The research conducted within the frame of this thesis is another confirmation of the importance of “the other” in learning, but maybe also offers a small piece of understanding as to why this is so, by recognizing the links between autonomy, authenticity and professional identity.

Bleakly & Bligh (2008) propose an authentic patient-centered model that shifts focus of learning from being between the doctor as educator and the student, to the relationship between patient and student with the doctor as the resource. They further propose that work needs to be done on theoretical modelling of what constitutes productive patient-student encounters. In such a model, the power base shifts from the doctor-educator to the collaboration between patient and student, and the student is encouraged to take a more active role in learning in collaboration with patients, other students and other professionals in the clinical team. Such a model, focusing on the student-patient dialogue, provides increased opportunity for students to perceive patients in a holistic manner and the locus for professional identity shaping changes from being an identification with senior doctors to identity shaped in the mirror of the patient (Bleakly & Bligh, 2008). The above described way of learning together with patients in a mutual and equal relationship, we interpret as being dependent on an authentic relationship in the sense of authenticity being the person you deep down really are with full potential.

6.1.2 Enhancing authenticity and autonomy

Findings in this thesis show how autonomy is dependent on authentic experiences, and how both authenticity and autonomy are social phenomena. Authenticity was perceived as making a difference to patients by being able to create relationships with them and to perform tasks of real importance to the caring process. Experiences of authenticity came out of situations where students were trusted to take responsibility for patients' whole situation, and be able to follow up outcomes of the care given, or treatments administrated. This focus on the wholeness of the patients' situation and care, we here interpret as meaning created from the situation. According to Marton & Booth (1997), a situation where we apply something that we have learned, has a relevance structure. As previously stated, this relevance structure is a person's perception of the goal or direction of that situation and this relevance structure is what drives learning forward (ibid). Throughout this thesis, it has become clear to us that the relationships that students create with patients, and the opportunity for students to take active part in patient care, creates a powerful relevance structure per se, i.e. the authentic caring situation with its attributes, and with the student as a trusted and active partaker *is* the relevance structure. This in itself may not be so revolutionary, but the distinction lies in the by us interpreted demand that it be an internal authentic situation. Thus, to enhance autonomy, and subsequent a change in professional identity in clinical education, a focus should lie on creating this internal authenticity.

Legitimate peripheral participation as described by Lave & Wenger (1991) is a way for students to take active part in practice and to experience the physical environment, the affordances, activities, language, artefacts and so on within a community of practice without demands on full participation. Newcomers have to have broad access to arenas of mature practice, but at the same time productive peripheral participation requires less demands on time, effort and responsibility than for full participants. "*A newcomer's tasks are short and simple, the costs of errors are small, the apprentice has little responsibility for the activity as a whole*" (Lave & Wenger, 1991 p. 110). Our way of defining internal authenticity according to Manninen (2014) and the studies in this thesis, might go beyond legitimate peripheral participation and pose greater demands on participation in the community of practice. In our findings, responsibility is vital for the experience of internal authenticity and also the importance of being able to encounter and take responsibility for wholeness, not only isolated tasks. On the other hand, our findings show how the relationship to the clinical supervisor provides an important protection against too much responsibility, in the sense of not being abandoned by the supervisor, but

having the supervisor as an “outer boarder” or back up when needed by the student. This poses demands on the clinical supervisor to be able to relate to students needs that vary with different situations and settings, and to have “timing” in the provision of support.

Lave & Wenger (1991) claim that the development of identity is central to the careers of newcomers in communities of practice, and thus central to legitimate peripheral participation. Thus, legitimate peripheral participation is more than a process of learning, but a reciprocal relation between person and practice. The move towards full participation does not take place in a static context, and changes over time and circumstances. Our interpretation of this, in the light of our findings, is the need for attachment and the ability for students to form this attachment. Practically, this have implications for the length of the clinical placements. Placements need to provide the opportunity to form attachment to supervisors, patients, the environment and other professional groups.

6.2 PROFESSIONAL BECOMING

The process of becoming a professional is always open-ended and incomplete. This process entails developing and refining an embodied understanding of professional practice, thus integrating knowing, acting and being in the world in the form of professional ways of being. This process does not entail fixed stages, but is individual and unfold as a transition over time (Dall’Alba, 2011). Through a systematic review of the literature on professional identity in higher education, Trede et al. (2012) found that most studies identified a strong link between reconciling personal values with professional when it came to the values, morals and dispositions that underpinned future professional practice. The key message from the reviewed literature was that professional identity development was about being in the world constituted by various settings and communities, thus making professional identity development complex and dynamic. Furthermore, Trede at al. (2012) identified the overall agreement that professional identity development is facilitated by collaborative and dialogic learning from practice and that it is fostered by real experiences in practice. Professional identity development is fluid and implies a shift and transformation of personal and professional knowledge, skills and dispositions.

The framework developed by Dall'Alba integrates epistemological and ontological dimensions of thinking, acting and being, and overcomes separation of mind from body as it claims the embodied understanding of practice (Dall'Alba, 2009; Adams et al, 2011). Current approaches to curriculum design emphasize the epistemological dimension and neglect the ontological dimensions of learning, and in doing so risk to reinforce a static view of expertise. Instead, curriculum design should acknowledge variability in the ways in which students experience practice. Another risk is the focus in practice on technical mastery, which could contribute to a narrow image of what practice really entails. As practice is dynamic, complex and pluralistic, a shift in focus that instead embraces variation and ambiguities in learning would help us see that becoming professionals is open-ended and incomplete (Adams et al., 2011). To educate towards becoming a professional, the pedagogy should expose students to different educational content in a professional context (Reid et al., 2008). Reconfiguring professional education as a process of becoming entails taking the ontological dimension of learning seriously and seeing education as a process of transformation of the self over time (Dall'Alba, 2009). More concretely, this includes the integration of horizontal and vertical dimensions of learning. Here, the horizontal dimension is the situations students encounter and the skill they develop by increased experience. The vertical dimension is the variation in understanding and carrying out practice. The vertical dimension is necessary to understand the variation in qualitative different ways of understanding and acting in practice (Dall'Alba, 2006). A shift towards embracing the ontological dimension of learning would for practice mean to embrace and make use of the complex and sometimes "messy" practice, and in doing so pay much more attention to the individual, and varying learning needs of the student in relation to this practice. In embracing the ontological dimension of learning, acting and being for professional becoming, a separation of theory and practice and of mind and body becomes impossible.

6.3 SUMMARY

Clinical education should provide an opportunity for students to form attachment. Students should be given the opportunity to be the person that they deep down really are with their full potential. We should make more use of the complex and sometimes "messy" practice that we already are in, and in doing so pay much more attention to the individual, and varying learning needs of the student in relation to this practice. To enhance autonomy and subsequent a change in professional identity, a focus should lie on creating internally authentic experiences. The ontological dimension of learning should be embraced, thus making it impossible to separate acting from being, theory from practice and mind from body.

6.4 METHODOLOGICAL REFLECTIONS

Throughout this thesis, a conscious decision was made not to ask participants directly in general terms about the phenomena under study. Because of the complex and contextual nature of the concepts of autonomy and authenticity, the use of narrative inquiry focusing on the participants' experiences of their life-world was chosen, thus revealing insights about how these phenomena are embedded in the participants' life-world.

Rees et al. (2013) describe how we as humans make sense of emotional experience through narratives and how emotions enhance our memory of these experiences and their central features. It is therefore likely that asking about events and experiences connected to an emotional response is a sound way of retrieving meaningful information about phenomena under study. However, it is of interest to note that, according to Rees et al. (2013), emotionally negative experiences might better "stick" in our memory, opening for the possibility that when asked about memorable events, students might have easier access to negative experiences.

Sparrow (2005) discusses with reference to Ricouer how the narrative self not is a constant self, but changes over time and events. When we make sense of our experiences, we use stories to make sense of them and relate them to other experiences. Thus, narrative identity is a portrait of the "why" in our lives, rather than a merely temporal sequence of events. Given this, it is evident that the narratives told in this story are temporary accounts of the participants' life-world experiences told from the perspective of their current narrative identity. In other words:

interpretation of experiences of autonomy and authenticity are not in any way to be seen as constant, but changing with time and context. However, this does not change the importance of our findings as "nuances of the colors of the rainbow that is autonomy and authenticity".

The studies in this thesis build on each other using an abductive design, i.e. findings from one study informed the research question and design of the next study. Likewise, the analysis of findings in all four studies has been, more or less abductively performed. In our perspective, herein lies the strength with this thesis as this approach has helped reveal deeper structures of findings and largely contributed to the transferability of findings.

The phenomena under study here have been elucidated from different perspectives and in part with different methods. Together with the decision not to ask in general terms about the phenomena and instead use narrative inquiry, phenomena and the meaning of phenomena have been contextualized. Also, phenomena have been studied in different settings and within different groups of students, contributing to variation and enhancing trustworthiness of findings.

Two types of narrative inquiry have been applied: analysis of narratives and narrative analysis. The strength in analysis of narratives is the capacity to develop more general knowledge and create the ability to abstract this knowledge. Narrative analysis, on the other hand, offers the possibility to deeper insights and understanding about the people and the meaning of the phenomena under study (McCane et al., 2001; Oliver, 1998). These two approaches complement each other and this was seen as specifically useful concerning the trustworthiness of study III, where the data set is the same, as in study II, but analyzed with a different aim and method.

In the overview of findings *(Figure 4)*, we present a thought model depicting the interrelatedness of findings. Although much research remains before the connections between the concepts in this model have been fully established, a strength is the above mentioned variation in researching these concepts and we believe that it can serve as a rough picture of where to place emphasis on efforts when designing clinical education.

6.5 FUTURE RESEARCH

The synthesis of findings from studies I-IV in this thesis show attachment as prerequisite for experiencing authenticity leading to autonomy and professional becoming. We are at the early stages of understanding the meaning of attachment, of what constitutes attachment, of how it can take on shape, and what features are conducive to the enhancement of attachment. Future studies should explore attachment in clinical education and focus on factors that create, but also hinder, attachment. Learning environments that facilitate students' experiences of attachment needs to be investigated. This research should examine attachment throughout a variation of educational programs and clinical placements within health-care education and medicine.

Furthermore, research is necessary to understand in more depth what the connections are between attachment, authenticity and autonomy, and what they might mean in different contexts. The connection to professional becoming must be further explored and the concept of professional becoming investigated in relation to professional development and professional identity. By doing so, the model depicting the interrelatedness of findings in this thesis *(Figure 4)*, could be further developed for future practical implementation and be used as a help and guide when designing clinical education.

7 ACKNOWLEDGEMENTS

This thesis is an autonomous work in the very sense of autonomy that has been portrayed here. This would not have been possible without relationships with others, without collaboration and support, and it has indeed resulted in a change of identity. For this I am grateful.

Above all, I wish to thank the students who have participated in these studies, for your willingness and honesty in sharing your stories with me, and for trusting me to take care of your personal experiences. Nothing would have been accomplished without you.

I deeply would like to thank *Karolinska Institutet* and *Head of Department*, Department of Learning, Informatics, Management and Ethics accepting me as a doctoral student, and giving me this fantastic opportunity to learn and develop, both as an academic and as a person.

For financial support, I stand in gratitude to *Karolinska Institutet*, Department of Learning, Informatics, Management and Ethics, to the *County Council of Värmland*, and to *Karlstad University*, Faculty of Health, Science and Technology.

I would like to express a specific thank you to former and present Head of Department ***Anki Nordmarker*** and ***Helene Hjalmarsson,*** and deputy Head of Department ***Monica Björkström***, Department of Health Science, Karlstad University, for your work to secure funding and for encouragement and support.

During these years, I have had the great privilege to work with three supervisors that have shared their knowledge, wisdom and experience with me and without whom this work would not have been possible.

Charlotte Silén, my main supervisor. There is no one in the world that I admire as much as you. You are the only person I know who truly live as you teach. Your pedagogical knowledge is so extensive, but above all, you possess the quality of always translating this knowledge into practice. Uncountable are the times when you have patiently waited for me to find the answer for myself, and as many are the times when you have let me believe that I have done so by my own account. You have let me spread my wings and fly. No matter how dark or troublesome a day or a task – after a discussion or just a talk with you, my heart has always lifted and I have been motivated to continue. I consider you a supervisor, peer, friend, mother and sister, and the very fact that this is even possible within the frame of a doctoral education, speaks of your pedagogical mastery. There is no way I can ever thank you enough.

Maggi Savin-Baden, my co-supervisor. You have a fantastic ability to give sharp and precise feedback and to help an analysis come yet another step further. Many are the times that you have challenged me to think again, and not to be satisfied too soon. The physical distance between us has never been a problem, and your readiness to communicate and to solve problems has been remarkable. You are supportive and demanding at the same time and I love it!

Lars Henningsohn, my co-supervisor. Thank you for being "the voice of the clinician" through this work. I am grateful for your valuable comments helping me understand when it became too abstract and unnecessary difficult! You have provided another angle on my work, coming from another profession and another scientific perspective and for this, I am truly grateful, in regards to this work and for the future. Also, thank you for your support and help in gaining access to clinic and students.

With sincere gratitude to ***Kersti Theander***, Chief Scientific Officer, Centre for Clinical Research, County Council of Värmland for valuable practical help, scientific support and friendship. I have learned so much from you. I look forward to new conferences and more collaboration!

I would like to express sincere gratitude to my co-authors of article IV, **Katri Manninen** (KI, LIME) and **Hans Hjelmqvist** (KI, CLINTEC and School of Medical Sciences, Örebro University) for your great work and feedback. I hope that we in the future can do more research and write more together!

Thank you ***Mikael Hasselgren***, School of Medical Sciences, Örebro University for practical help and feedback when conducting and presenting parts of this research, and with gratitude to ***Marie Lidskog*** for the opportunity to present this research for clinical educators.

To Research group ***Pedagogical Encounters in Health Care***, my heartfelt thank you for stimulating discussions and insightful comments on my work over the years. It is a real privilege to take part in such a group and to have this scientific context. A special thank you for comments on the "kappa".

I would like to extend my sincere gratitude to ***former and present fellow doctoral students*** at LIME for your friendship, support, discussion and advise. I do so admire you all! Thank You ***Linda Barman, Maria Weurlander, Samuel Edelbring, Lena Engqvist-Boman, Hanna Lachmann, Susanne Kalén, Per Palmgren, Matilda Liljedahl, Carina Georg and Harris Koufidis.*** A special thank you to ***Katri Manninen***, my dear friend and fellow researcher, I admire you so much, thank you for leading the way through this process of becoming a doctor in medical education! I hope that we can do great work together very soon! A special thank you also to ***Lena Engqvist-Boman*** for leading the way and for being a great friend and example!

Senior research colleagues and colleagues at LIME for your expertise and example! Thank You ***Klara Bolander-Laksov, Terese Stenfors-Hayes, Lars Uhlin, Cormac McGrath, Juha Nieminen***. A special thank you to ***Klas Karlgren*** for valuable discussions and for being defense chairperson!

Thank You ***Ingrid Smedberg*** for valuable administrative support, to ***Monica Molin*** for excellent transcribing of interviews, to ***Ellinor Larsen*** for excellent language editing, and to Helena Christerdotter for photo editing!

My deepest gratitude to ***senior research colleagues, colleagues and administrative personnel*** at Department of Health Science, Karlstad University. You are too many to mention here, but your friendship and support during these many years is a great part of this work. I appreciate you all and I have learned so much from you! A special thank you to ***Maria Larsson*** and ***Kaisa Bjuresäter*** for input and feedback during these last months. My former mentor ***Maria Bystedt*** for valuable support during the first years! My friend and colleague ***Brian Unis*** for scientific discussions, uncountable lunches and talks of life in general!

To the other half of my life; my friends and family in Karlstad, Stockholm, Linköping and in Germany! Thank you for being that "something else", for showing me what is truly important in life. I love you all!

Tina and Peo, my "sister and brother" with families. Thank you for Christmas parties, New Year, Easter and Midsummer together for now soon over twenty years! You are the family that I have chosen! A special thank you to Peo for last-minute IT-supprt.

To my parents in law***, Kerstin and Sune***, for all the help and support you give to our family. It could not have been done without you!

My parents ***Kickan and Andy,*** thank you for being the best "mormor och morfar" to Vega, for all your love and support, endless practical help and for never being more than a phone call away. Thank you for summers together and for being such a great part of our lives. Thank you ***mother Kickan*** for always believing that I can do anything. I love you both so much!

Samuel and Andreas for showing me the world of hockey, for much laughter and fun times. I so enjoy being your "bonus mother"!

My beloved husband, Tobias, thank you for putting up with me! I know it is not always easy. It speaks of your character that you have managed a pregnant wife in "dissertation-end-phase". Thank you for every day; for "Pajala Sunrise", cutting down all our trees, every liter of milk and every meal you have cooked. Thank you for being the best father to our child and for your endless patience. I love you.

Finally, ***my daughter Vega***, the light of my life. I knew nothing of love before you came. This is for you. I hope to show you the great joy in finding something that you are passionate about doing, although nothing has ever meant more to me than being you mother!

Karlstad November 2017

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